CLAIMS

1. An electronic device for playing audio at user selectable rates comprising:

an audio output module couple to at least one circular fixed-length outbound audio buffer for playing audio therefrom through a speaker, wherein the audio is stored as a series of sequential time-based audio samples, which are portioned into sequential frames;

a first modulo pointer for modulo indexing into the circular fixed-length outbound audio buffer where a first portion of audio samples is indexed;

a second modulo pointer for modulo indexing into the circular fixed-length outbound audio buffer where a second portion of the audio samples is indexed so that the first portion and the second portion of the audio samples are sequential in time;

a cross correlation function for determining a position of maximum correlation between the first portion of the audio samples and the second portion of the audio samples;

a third modulo pointer for modulo indexing into the circular fixed-length outbound audio buffer at the position of maximum correlation; and

a SOLA (Synchronized OverLap and Add) function with a selectable rate variable, the SOLA function operating on the first portion of the audio samples and the second portion of the audio samples with an output of the SOLA function being written in the circular fixed-length outbound audio buffer at a starting position of the third modulo pointer.

2. The device of claim 1, further comprising:

an audio loopback path to present audio received from a user via an audio input module to the circular fixed-length outbound audio buffer of the audio output module so that audio is capable of being heard by a user.

3. The device of claim 2, wherein the audio output module includes:

a vocoder for detecting a word rate in the audio loopback path using at least one of:

an energy decision metric;

a voicing decision metric; and

a tonality measure.

4. The device of claim 3, wherein the word rate is used to set the selectable rate variable.

5. The device of claim 1, further comprising:

a user input interface for receiving a user selection for adjusting the selectable rate variable.

6. The device of claim 1, further comprising a receiver for receiving the selectable rate variable from a second device.

7. The device of claim 5, wherein the user input interface for receiving a user selection includes a selection for increasing the selectable rate variable of audio playback and a selection for decreasing the selectable rate variable of audio playback.

8. The device of claim 1, further comprising:

a copying function for inserting a copy of the first portion the audio samples in between the first portion and the second portion of the audio samples so as to be sequential in time there between.

9. A first wireless messaging device for playing audio at user selectable rates comprising:

a loopback path to provide user definable speed adjustment in audio feedback via a loopback rate to a user talking into a wireless messaging device, wherein the loopback circuit includes an audio output module couple to at least one circular outbound audio buffer for playing audio for the user to hear therefrom; and

a user interface for adjusting the loopback rate.

10. The device of claim 9, further comprising:

a SOLA (Synchronized OverLap and Add) function operating on the audio in the circular outbound audio buffer, which is stored as a series of sequential time-based audio samples.

11. The device of claim 10, wherein the loopback rate is set by a user of the wireless messaging device.

12. The device of claim 10, wherein the user loopback rate is received from a second wireless messaging device.

13. The device of claim 9, wherein the output module includes:

a vocoder for detecting a word rate detection in the loopback path using at least one of:

an energy decision metric;

a voicing decision metric; and

a tonality measure.

14. The device of claim 13, wherein a word rate is used to set the loopback rate.

15. A computer readable medium containing programming instructions for executing on an electronic device with an audio output module, the programming instructions comprising:

storing as a series of sequential time-based audio samples, which are portioned into sequential frames in at least one circular fixed-length outbound audio buffer for playing audio therefrom through a speaker;

indexing into the circular fixed-length outbound audio buffer with a first modulo pointer where a first portion of audio samples is indexed;

indexing into the circular fixed-length outbound audio buffer with a second modulo pointer to a second portion of the audio samples is indexed so that the first portion and the second portion of the audio samples are sequential in time;

determining a position of maximum correlation between the first portion of the audio samples and the second portion of the audio samples;

indexing into the circular fixed-length outbound audio buffer with a third modulo pointer to the position of maximum correlation; and

executing a SOLA (Synchronized OverLap and Add) function with a selectable rate variable, the SOLA function operating on the first portion of the audio samples and the second portion of the audio sampleswith an output of the SOLA function being written in the circular fixed-length outbound audio buffer at a starting position of the third modulo pointer.

16. The computer readable medium according to claim 15, further comprising

receiving via a user input interface a user selection for adjusting the selectable rate variable.

17. The computer readable medium according to claim 15 further comprising: receiver for receiving a rate variable from a second device.